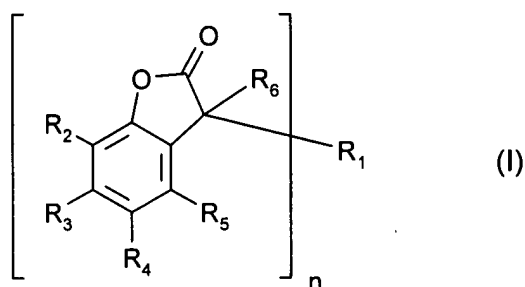


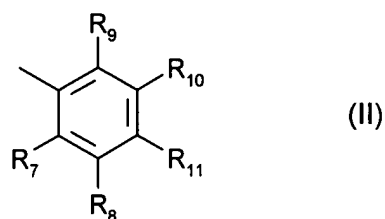
IN THE CLAIMS:

1. (currently amended). A composition of matter normally subject to oxidative deterioration comprising an edible organic substance normally subject to oxidative deterioration and a minor amount effective as an antioxidant of one or more compounds selected from the group consisting of
- (i) 3-arylbenzofuranones in the present invention are compounds of the formula I



in which, if n is 1,

R₁ is unsubstituted or C₁-C₄alkyl-, C₁-C₄alkoxy-, C₁-C₄alkylthio-, hydroxyl-, halo-, amino-, C₁-C₄alkylamino-, phenylamino- or di(C₁-C₄alkyl)amino-substituted naphthyl, phenanthryl, anthryl, 5,6,7,8-tetrahydro-2-naphthyl, 5,6,7,8-tetrahydro-1-naphthyl, thienyl, benzo[b]thienyl, naphtho[2,3-b]thienyl, thianthrenyl, dibenzofuryl, chromenyl, xanthenyl, phenoxathiinyl, pyrrolyl, imidazolyl, pyrazolyl, pyrazinyl, pyrimidinyl, pyridazinyl, indoliziny, isoindolyl, indolyl, indazolyl, purinyl, quinoliziny, isoquinolyl, quinolyl, phthalazinyl, naphthyridinyl, quinoxaliny, quinazolinyl, cinnoliny, pteridinyl, carbazolyl, β-carboliny, phenanthridinyl, acridinyl, perimidiny, phenanthroliny, phenazinyl, isothiazolyl, phenothiazinyl, isoxazolyl, furazanyl, biphenyl, terphenyl, fluorenyl or phenoxazinyl, or R₁ is a radical of the formula II



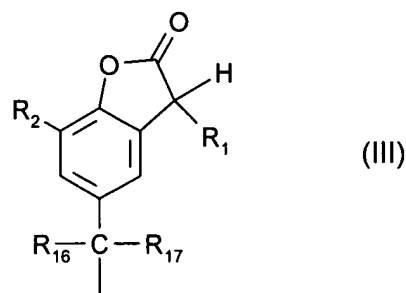
and

if n is 2,

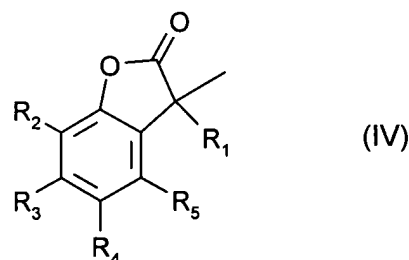
R₁ is unsubstituted or C₁-C₄alkyl- or hydroxy-substituted phenylene or naphthylene; or is -R₁₂-X-R₁₃-, R₂, R₃, R₄ and R₅ independently of one another are hydrogen, chlorine, hydroxyl, C₁-C₂₅alkyl, C₇-C₉phenylalkyl, unsubstituted or C₁-C₄alkyl-substituted phenyl; unsubstituted or C₁-C₄alkyl-substituted C₅-C₈cycloalkyl; C₁-C₁₈alkoxy, C₁-C₁₈alkylthio, C₁-C₄alkylamino, di(C₁-C₄alkyl)amino, C₁-

C₂₅alkanoyloxy, C₁-C₂₅alkanoylamino, C₃-C₂₅alkenoyloxy, C₃-C₂₅alkanoyloxy which is interrupted by oxygen, sulfur or >N-R_{14} ; C₆-C₉cycloalkylcarbonyloxy, benzoyloxy or C₁-C₁₂alkyl-substituted

benzoyloxy; or else the radicals R₂ and R₃ or the radicals R₃ and R₄ or the radicals R₄ and R₅, together with the carbon atoms to which they are attached, form a benzo ring, R₄ is additionally -(CH₂)_p-COR₁₅ or -(CH₂)_qOH or, if R₃, R₅ and R₆ are hydrogen, R₄ is additionally a radical of the formula III



in which R₁ is defined as indicated above for n = 1,
R₆ is hydrogen or a radical of the formula IV



where R₄ is not a radical of the formula III and R₁ is defined as indicated above for n = 1,
R₇, R₈, R₉, R₁₀ and R₁₁ independently of one another are hydrogen, halogen, hydroxyl, C₁-C₂₅alkyl, C₂-

C₂₅alkyl interrupted by oxygen, sulfur or >N-R_{14} ; C₁-C₂₅alkoxy, C₂-C₂₅alkoxy interrupted by

oxygen, sulfur or >N-R_{14} ; C₁-C₂₅alkylthio, C₃-C₂₅alkenyl, C₃-C₂₅alkenyloxy, C₃-C₂₅alkynyl, C₃-

C₂₅alkynyloxy, C₇-C₉phenylalkyl, C₇-C₉phenylalkoxy, unsubstituted or C₁-C₄alkyl-substituted phenyl; unsubstituted or C₁-C₄alkyl-substituted phenoxy; unsubstituted or C₁-C₄alkyl-substituted C₅-C₈cycloalkyl; unsubstituted or C₁-C₄alkyl-substituted C₅-C₈cycloalkoxy; C₁-C₄alkylamino, di(C₁-

C₄alkyl)amino, C₁-C₂₅alkanoyl, C₃-C₂₅alkanoyl interrupted by oxygen, sulfur or >N-R_{14} ;

C₁-C₂₅alkanoyloxy, C₃-C₂₅alkanoyloxy interrupted by oxygen, sulfur or >N-R_{14} ;

C₁-C₂₅alkanoylamino, C₃-C₂₅alkenoyl, C₃-C₂₅alkenoyl interrupted by oxygen, sulfur or >N-R_{14} ;

C₃-C₂₅alkenoyloxy, C₃-C₂₅alkenoyloxy interrupted by oxygen, sulfur or >N-R_{14} ; C₆-

C₉cycloalkylcarbonyl, C₆-C₉cycloalkylcarbonyloxy, benzoyl or C₁-C₁₂alkyl-substituted benzoyl;

benzoyloxy or C₁-C₁₂alkyl-substituted benzoyloxy; $\text{—O—}\overset{\overset{\text{R}_{18}}{|}}{\underset{\underset{\text{R}_{19}}{|}}{\text{C}}}\text{—}\overset{\overset{\text{O}}{||}}{\text{C}}\text{—R}_{15}$ or

$\text{—O—}\overset{\overset{\text{R}_{20}}{|}}{\underset{\underset{\text{H}}{|}}{\text{C}}}\text{—}\overset{\overset{\text{R}_{21}}{|}}{\underset{\underset{\text{R}_{22}}{|}}{\text{C}}}\text{—O—R}_{23}$, or else, in formula II, the radicals R₇ and R₈ or the radicals R₈ and R₁₁,

together with the carbon atoms to which they are attached, form a benzo ring,

R₁₂ and R₁₃ independently of one another are unsubstituted or C₁-C₄alkyl-substituted phenylene or naphthylene,

R₁₄ is hydrogen or C₁-C₈alkyl,

R₁₅ is hydroxyl, $\left[\text{—O}^- \frac{1}{r} \text{M}^{r+} \right]$, C₁-C₁₈alkoxy or $\text{—N}\begin{matrix} \text{R}_{24} \\ \text{R}_{25} \end{matrix}$,

R₁₆ and R₁₇ independently of one another are hydrogen, CF₃, C₁-C₁₂alkyl or phenyl, or R₁₆ and R₁₇, together with the C atom to which they are attached, form a C₅-C₈cycloalkylidene ring which is unsubstituted or substituted from 1 to 3 times by C₁-C₄alkyl;

R₁₈ and R₁₉ independently of one another are hydrogen, C₁-C₄alkyl or phenyl,

R₂₀ is hydrogen or C₁-C₄alkyl,

R₂₁ is hydrogen, unsubstituted or C₁-C₄alkyl-substituted phenyl; C₁-C₂₅alkyl, C₂-C₂₅alkyl interrupted by

oxygen, sulfur or >N-R_{14} ; C₇-C₉phenylalkyl which is unsubstituted or substituted on the phenyl

radical from 1 to 3 times by C₁-C₄alkyl; C₇-C₂₅phenylalkyl which is unsubstituted or substituted on the

phenyl radical from 1 to 3 times by C₁-C₄alkyl and interrupted by oxygen, sulfur or $\text{N}-\text{R}_{14}$, or

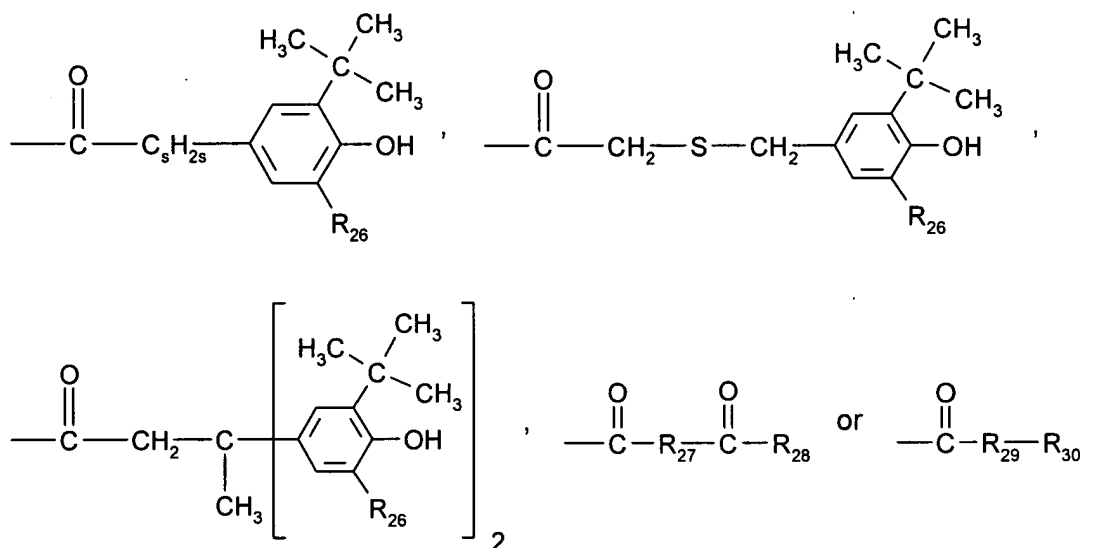
else the radicals R₂₀ and R₂₁, together with the carbon atoms to which they are attached, form a C₅-C₁₂cycloalkylene ring which is unsubstituted or substituted from 1 to 3 times by C₁-C₄alkyl;

R₂₂ is hydrogen or C₁-C₄alkyl,

R₂₃ is hydrogen, C₁-C₂₅alkanoyl, C₃-C₂₅alkenoyl, C₃-C₂₅alkanoyl interrupted by oxygen, sulfur or

$\text{N}-\text{R}_{14}$; C₂-C₂₅alkanoyl substituted by a di(C₁-C₆alkyl)phosphonate group;

C₆-C₉cycloalkylcarbonyl, thenoyl, furoyl, benzoyl or C₁-C₁₂alkyl-substituted benzoyl;



R₂₄ and R₂₅ independently of one another are hydrogen or C₁-C₁₈alkyl,

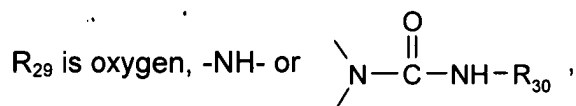
R₂₆ is hydrogen or C₁-C₈alkyl,

R₂₇ is a direct bond, C₁-C₁₈alkylene, C₂-C₁₈alkylene interrupted by oxygen, sulfur or $\text{N}-\text{R}_{14}$; C₂-

C₁₈alkenylene, C₂-C₂₀alkylidene, C₇-C₂₀phenylalkylidene, C₅-C₈cycloalkylene, C₇-C₈bicycloalkylene,

unsubstituted or C₁-C₄alkyl-substituted phenylene, or  or ,

R₂₈ is hydroxyl, $\left[-\text{O}^- \frac{1}{r} \text{M}^{r+} \right]$, C₁-C₁₈alkoxy or $\text{N}-\text{R}_{24}-\text{R}_{25}$,



R_{30} is C_1 - C_{18} alkyl or phenyl,

R_{31} is hydrogen or C_1 - C_{18} alkyl,

M is an r-valent metal cation,

X is a direct bond, oxygen, sulfur or $-NR_{31}-$,

n is 1 or 2,

p is 0, 1, or 2,

q is 1, 2, 3, 4, 5 or 6,

r is 1, 2 or 3, and

s is 0, 1 or 2;

wherein said edible organic substance is a food containing fatty acid glycerides, edible fats and fatty oils; and said edible organic substance is selected from the group consisting of potato flakes, bakery products, meat emulsions, precooked cereals, instant noodles, soybean milk, chicken products, sausage, mayonnaise, margarine, frozen fish, pet food, animal feed, frozen pizza and cheese; and said fatty acid glycerides contain from 12 carbon atoms to about 24 carbon atoms per ester site.

2. (original). The composition of claim 1 wherein the benzofuranone is at least one compound of formula I wherein $n = 1$, R_1 is phenyl which is unsubstituted or substituted in para-position by C_1 - C_{18} alkylthio or di(C_1 - C_4 alkyl)amino; mono- to penta-substituted alkyphenyl containing together a total of at most 18 carbon atoms in the 1 to 5 alkyl substituents; naphthyl, biphenyl, terphenyl, phenanthryl, anthryl, fluorenyl, carbazolyl, thienyl, pyrrolyl, phenothizinyll or 5,6,7,8-tetrahydronaphthyl, each of which is unsubstituted or substituted by C_1 - C_4 alkyl, C_1 - C_4 alkoxy, C_1 - C_4 alkylthio, hydroxy or amino.

3. (original). The composition of claim 1 wherein the benzofuranone is a compound of formula I wherein n is 2, R_1 is $-R_{12}-X-R_{13}-$, R_{12} and R_{13} are phenylene, X is oxygen or $-NR_{31}-$, and R_{31} is C_1 - C_4 alkyl.

4. (original). The composition of claim 1 wherein the benzofuranone is at least one compound selected from the group consisting of 3-[4-(2-acetoxyethoxy)phenyl]-5,7-di-tert-butyl-benzofuran-2-one; 5,7-di-tert-butyl-3-[4-(2-stearoyloxyethoxy)phenyl]benzofuran-2-one; 3,3'-bis[5,7-di-tert-butyl-3-(4-[2-hydroxyethoxy]phenyl)benzofuran-2-one]; 5,7-di-tert-butyl-3-(4-ethoxyphenyl)benzofuran-2-one; 3-(4-acetoxy-3,5-dimethylphenyl)-5,7-di-tert-butylbenzofuran-2-one; 3-(3,5-dimethyl-4-pivaloyloxyphenyl)-5,7-di-tert-butyl-benzofuran-2-one; 5,7-di-tert-butyl-3-phenylbenzofuran-2-one; 5,7-di-tert-butyl-3-(3,4-dimethylphenyl)-benzofuran-2-one; 5,7-di-tert-butyl-3-(2,3-dimethylphenyl)benzofuran-2-one.

5-13. (cancelled).

14. (previously presented). The composition of claim 1 wherein the antioxidant of component (i) is present in an amount of from about 0.005% by weight to about 5% by weight, based on the weight of the edible organic substance.

15. (previously presented). The composition of claim 1 wherein the antioxidant of component (i) is present in an amount of from about 0.01% by weight to about 1% by weight, based on the weight of the edible organic substance.

16. (original). The composition of claim 1 wherein the composition further comprises additional food additives selected from food antioxidants in addition to those specified in claim 1, emulsifiers, suspension agent and colorings.

17. (currently amended). The composition of claim 1 wherein the composition further comprises food antioxidants selected from the group consisting of butylated hydroxytoluene, benzylphosphonates, ~~esters of b-(3,5-di-tert-butyl-4-hydroxyphenyl)propionic acid with mono- or polyhydric alcohols, esters of b-(5-tert-butyl-4-hydroxy-3-methylphenyl)propionic acid with mono- or polyhydric alcohols, esters of b-(3,5-dicyclohexyl-4-hydroxyphenyl)propionic acid with mono- or polyhydric alcohols, esters of 3,5-di-~~

~~tert-butyl 4-hydroxyphenyl acetic acid with mono- or polyhydric alcohols, phosphites and~~
~~phosponites.~~

18-20. (cancelled).